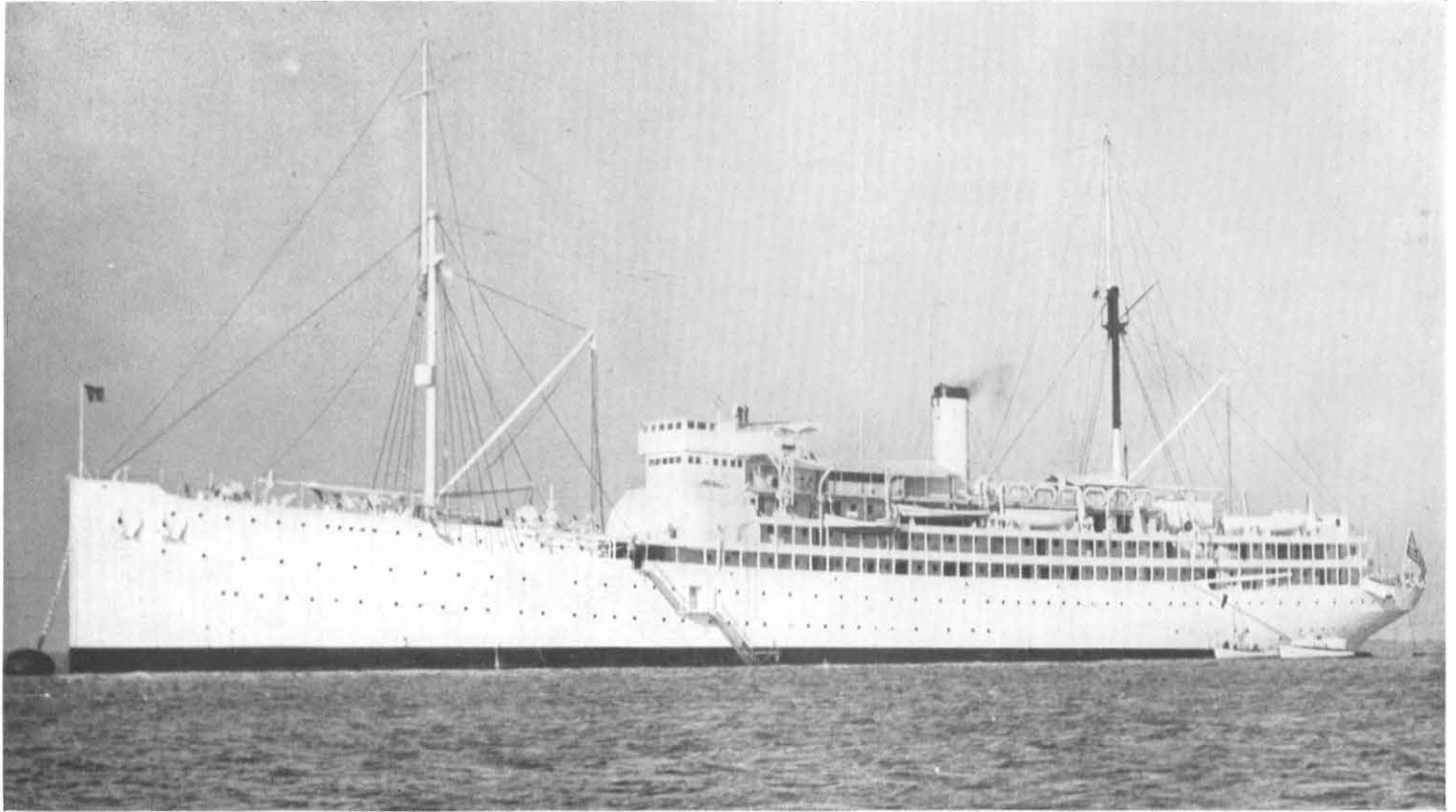


All for the Life of a Sailor on the U. S. S. Relief

By
LUCIUS W. JOHNSON, M.D.,
Captain, Medical Corps, United States Navy

Reprinted from THE MODERN HOSPITAL, June, 1936, Vol. 46, No. 6

All for the Life of a Sailor



By LUCIUS W. JOHNSON, M.D., Captain, Medical Corps, United States Navy

A TRAINED navy man is a valuable commodity, the production of which involves years of time and considerable expense. When a man is lost to the service, there is no convenient reservoir from which he can be replaced. Only through the same long and expensive course of training may another be developed to take his place. So it has been found good economy to develop an organization which has as its object the prevention of loss of men to the navy through injury or sickness.

Take the case of Sam Smith, boatswain's mate on a destroyer which was engaged in target practice about 150 miles southwest of San Diego. Shortly after midnight Sam awoke in his bunk with a vague suspicion that the last bag of peanuts and the last piece of mince pie that he had eaten just before turning in were not going to

get along well together. A little later he awoke again with the conviction that they were not only going to disagree with each other but also with him. He tried to get rid of them, but with little success, and the strain of trying to empty his stomach only made it feel worse. When his watch was called he turned out and tried to dress, but the pressure of the waistband of his trousers hurt and there was one spot in the southwest corner of his tummy that was getting to be very sore when he pressed on it. So he lay down in his bunk and sent a shipmate for help.

It is not every destroyer that carries a doctor, usually there is only one medical officer to each division of destroyers; but each vessel has a pharmacist's mate, a man with years of training in hospital nursing and care of the sick. He is competent to take care of minor illnesses and knows

on the U. S. S. Relief

when and how to get help for more serious conditions. The pharmacist's mate on this destroyer was well indoctrinated with the good old life-saving slogan, "Pain in the belly probably means appendicitis; do not give a cathartic." One gentle prod at that tender spot in Sam's southwest corner and he knew that outside help was needed.

So he reported the matter at once to the commanding officer, who sent a radio to the base at San Diego, giving details and requesting instructions. This message was referred to the district medical officer, who recommended that a plane, with a doctor, be sent to bring the sick man to the hospital.

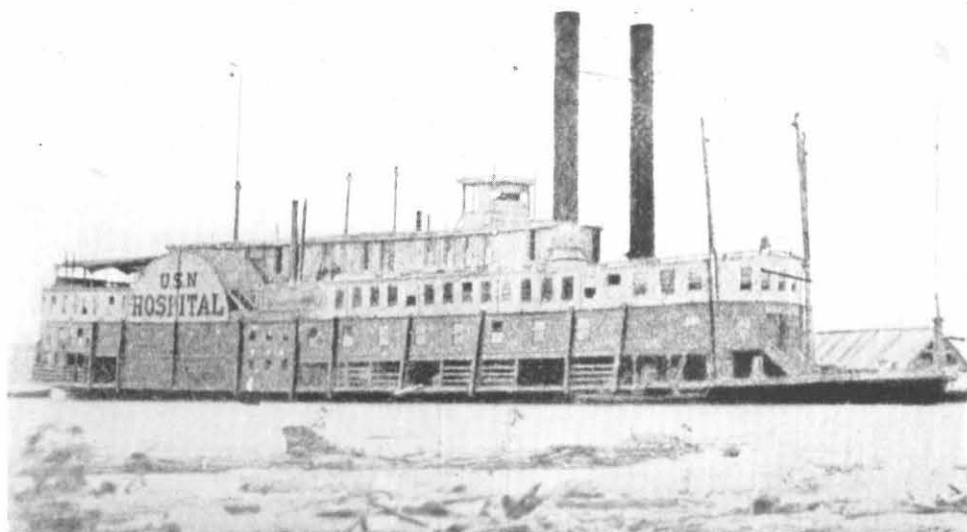
Not long after Sam Smith first described his pain, a huge seaplane left the naval air station at North Island to fly over 150 miles of ocean to his rescue. An hour later the destroyer was located and the plane landed on the water near it. A brief examination served to confirm the suspicion of appendicitis and indicated that the place for the patient was in the hospital. He was placed in a stretcher and taken in a boat to the plane, which was soon under way on its return trip. When North Island was reached the ambulance was waiting to take him to the naval hospital at San Diego, and there the operating room was all prepared to go to work at once. Within three hours after the patient's troubles began he was receiving the treatment that saved him for the naval service.

Of course, his name wasn't really Sam Smith

Since 1588 hospital ships have followed the fleet, writing their part in the history of war. The U. S. S. Relief, the first such ship designed and built to be a hospital, plays an equally important part in peace time maneuvers and civil catastrophes

but aside from this camouflaged fact the episode occurred in just this way.

Similar occurrences are common wherever the navy is at work and to assure proper treatment for those who are too sick to be taken care of on their own ships, naval hospitals are located at strategic points. On the east coast they are at Portsmouth, N. H., at Boston, New York City, Philadelphia, Norfolk, Va., and Charleston, S. C., to serve the fleet when it is in the Atlantic. On the Pacific Coast there are naval hospitals at Bremerton, Wash., at Mare Island, which is about thirty miles up the bay from San Francisco and at San Diego, Calif. Out across the Pacific there are hospitals at Pearl Harbor, Honolulu; at Guam and at Cañacao in the Philippine Islands. Field hospitals accompany marine corps expeditionary forces, and there are large sick bays, which are



One of the most famous hospital ships of all time—the Red Rover, which served the Mississippi squadron of Rear Admiral David D. Porter in the civil war. She carried the first women nurses of whom we have any record in the navy.

really small hospitals, at Quantico, Va., Parris Island, S. C., Guantanamo, Cuba, and Pago Pago, Samoa. Wherever the navy or marine corps may be stationed in considerable numbers, hospital facilities are provided.

In the San Pedro-Long Beach area of California, there is no naval hospital on shore. The U. S. S. *Relief* serves as fleet hospital ship. A large part of the fleet makes this area its rendezvous and there often are as many as 35,000 men on the ships present in port. When the whole fleet goes on a cruise there may be 160 ships and 45,000 men. A navy ship may be regarded as a large industrial plant in which the men work and live amongst innumerable high-speed machines and explosives. These industrial hazards are added to those which are inseparable from life on ships at sea, such as exposure to inclement weather, sudden and extreme changes in climate, unavoidable crowding. So sickness and injury are common occurrences and provide for the *Relief* a large clientele and an active practice. This practice is carried on under conditions very different from those on shore.

Patient Capacity Is 360

First, some statistics on the *Relief*. She is a ship of 9,750 tons displacement; length over all 484 feet; beam 61 feet; mean draft 19.5 feet; cruising speed 10 knots and full speed 16 knots. She has a crew of 327 men, 118 of whom belong to the hospital corps of the navy. Her normal patient capacity is 360, but this can be expanded if necessary to 500. Facilities and specialists are provided for internal medicine, general and orthopedic surgery, eye, ear, nose and throat, neuropsychiatry, urology, laboratory, roentgenology, physical therapy, prosthetic and operative dentistry, pharmacy, dietetics, basal metabolism and electrocardiography.

Accessory units include the medical library, crew and patients' library, medical supply and store rooms, linen room, laundry, sterilization facilities, commissary, mess rooms, galleys, special diet kitchens, refrigeration space, butcher shop, tailor shop, radio office, telephone exchange with 140 stations, post office, barber shop, mortuary and baggage room. A moving picture show is given every night and a ship's paper, the *Tonic*, is published daily when at sea.

During 1934 there were 2,140 patients hospitalized on the ship, a daily average of 114 patients. There were 417 operations in the main operating room and 566 nose and throat operations. The total laboratory examinations were 11,814; x-ray examinations and treatments, 4,367, and physiotherapy treatments, 4,472. An impor-

tant part of the work is providing specialists and facilities for consultation to the medical officers of combatant ships which lack the elaborate equipment of the *Relief*. Special laboratory work, such as Kahn reactions, cultures, manufacture of vaccines, water and milk analysis, examination of food and other procedures usually done by large city laboratories are within her scope.

There are twelve line officers, including both commissioned and warrant, to run the ship and take care of its military aspects. Supplies, messing and similar activities are in charge of two supply officers and a chief pay clerk. The medical staff is composed of ten members of the medical corps, three dental officers and three pharmacists. There are ten members of the navy nurse corps who supervise the nursing activities. The 118 men of the hospital corps constitute the nursing force, act as technical assistants and perform manifold duties. Many of them hold certificates as laboratory, x-ray, physiotherapy and dental technicians.

During the clinical congress of the American College of Surgeons which was held in San Francisco in October, 1935, the *Relief* was moored to a dock and open house was held daily for those attending the congress. Hundreds of visitors were welcomed on board and, to most of them, a cruising hospital ship was a revelation, something they had not known to exist. Since there is such a dearth of general knowledge on the subject, a brief allusion to the history of hospital ships with military and naval forces may be of interest to readers.

Hospital Ships in History

The Invincible Armada, in 1588, was accompanied by a hospital ship and there were eighty-five physicians and surgeons in attendance. There is reason to believe that earlier Roman and Greek fleets had special ships for the care and transportation of sick and wounded, but little is definitely known about them, since the poets were more likely to perpetuate in verse the deeds of valor of the warriors than to sing of the less dramatic efforts to alleviate their suffering when wounded.

In 1608, the hospital ship *Good Will* accompanied the British fleet in the Mediterranean and, in 1654, a hospital ship was a part of Admiral Penn's fleet when it cruised to the West Indies. Unsavory conditions on the hospital ships with Admiral Vernon's ill-starred campaign against Cartagena and Santiago in 1740 and 1741 are described by Tobias Smollett, who was a surgeon's mate aboard one of the ships. His personal experiences, both as surgeon's mate and as patient

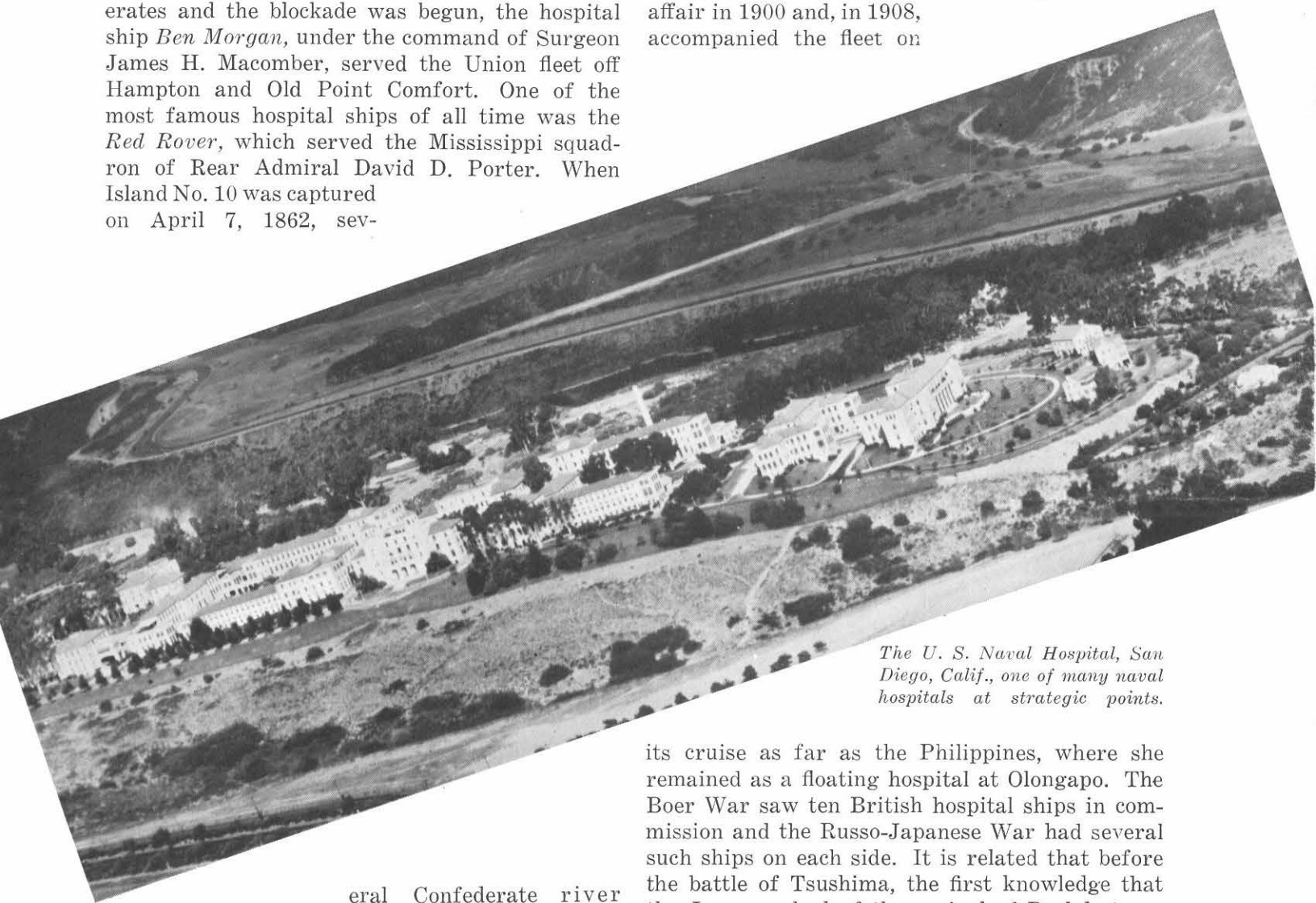
provided the background for the adventures of the hero of his novel, Roderick Random.

In 1793, the *Dolphin* served as hospital ship with Hood, off Toulon and, during the revolutionary period Howe had with the British fleet the hospital ship *Pharon*. The Italians had, in 1866, a hospital ship, the *Washington*, which was commanded by a medical officer of the Italian navy.

In our own Civil War, soon after the Norfolk Naval Hospital fell into the hands of the Confederates and the blockade was begun, the hospital ship *Ben Morgan*, under the command of Surgeon James H. Macomber, served the Union fleet off Hampton and Old Point Comfort. One of the most famous hospital ships of all time was the *Red Rover*, which served the Mississippi squadron of Rear Admiral David D. Porter. When Island No. 10 was captured on April 7, 1862, sev-

that the ship "was fitted out with every comfort and poor Jack, when sick or wounded, was cared for in a style never before dreamed of in the navy." She carried the first women nurses of whom we have any record in the navy.

The Spanish-American War gave additional evidence of the value of hospital ships with expeditionary forces. On the American side were six ships of this type, one of them called the *Relief*. That ship served later during the Boxer affair in 1900 and, in 1908, accompanied the fleet on



The U. S. Naval Hospital, San Diego, Calif., one of many naval hospitals at strategic points.

eral Confederate river steamers were seized by the Federal gunboat *Mound City*. One of these was fitted up as a hospital and renamed the *Red Rover*. Contemporaries describe her as a veritable floating palace, with an ice-box holding 300 tons, bathrooms, elevator, laundry, gauze blinds to the windows, operating room and nine different water-closets. Another historian was impressed by the fact that there were two water-closets on each deck. Those old campaigners unerringly placed a proper value on those emblems of civilization, so little honored when close at hand, so much desired when absent. Admiral Porter wrote

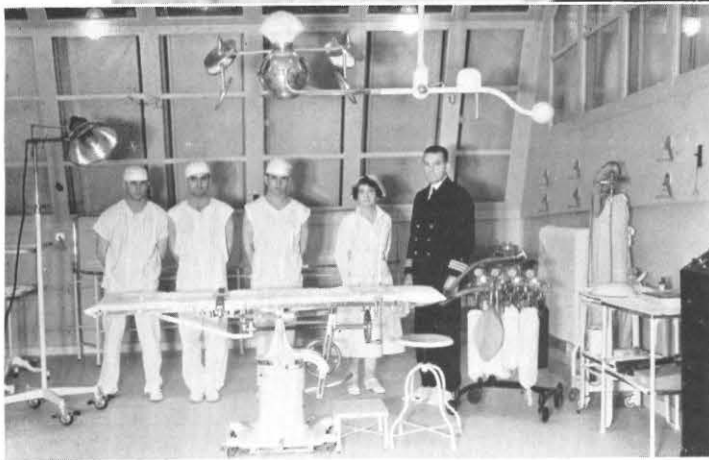
its cruise as far as the Philippines, where she remained as a floating hospital at Olongapo. The Boer War saw ten British hospital ships in commission and the Russo-Japanese War had several such ships on each side. It is related that before the battle of Tsushima, the first knowledge that the Japanese had of the arrival of Rozhdestvensky's Russian fleet from Riga was when they sighted the trailing hospital ships. During the World War there were nearly 200 hospital ships employed by the various hostile nations.

The present hospital ship *Relief* was launched on December 23, 1919 and commissioned on December 28, 1920, since which time she has almost continuously served the fleet. She is unique in that she is the only one to be built from the keel up as a hospital ship. All the others were converted merchant ships.

It would require a rather intimate knowledge



View of a surgical ward on the "Relief." Another tier of bunks can be hung on the stanchions if necessary. Left, Commander Horace R. Boone is seen with his operating room crew.



of ships to appreciate what an enormous advantage it is to have one designed and built for this specific purpose. Experience has proved that such accessories as operating suites, quiet rooms and dental and physiotherapy clinics can never be satisfactorily fitted into the hull of a ship which was designed to carry passengers and freight. Lessons learned from the *Relief* will prove of inestimable benefit when the time comes to design our next hospital ship.

As an illustration of the way in which the hospital ship works, a recent case may serve.

Chief Gunner's Mate John Jones, U. S. N., of the U. S. S. *Soandso*, a heavy cruiser, was watching the ammunition as it came up the hoist. Stop watch in hand, he checked to a split second the loading time, while the pointers kept their cross-marks on a target which represented a ship of

the White fleet, several miles away. Suddenly all interest in outside affairs was obliterated by a pain that ran him through and through. Overwhelming at first, it increased in intensity until he lay rigid, almost unconscious, unable even to groan. The turret officer, seeing that Jones was unable to continue, stopped the drill and had him carried to the sick bay. The medical officer reached the sick bay at the same time. A few questions and a look at the abdomen made the diagnosis clear. "Yes sir, indigestion for several weeks, but soda bicarb. helped it." "Had indigestion for a while a year ago." "Look at that belly," said the medico to his junior. "Hard as a board, and that transverse furrow that Deaver used to talk about. Must be a perforated ulcer."

That required consultation with the commanding officer, for the ship was an important unit of the Black fleet, while the main body of the White fleet was probably 200 miles to the south. Each fleet was trying, by superior strategy, to outmaneuver the other and secure the advantage of position when they met. To have the U. S. S. *Soandso* leave its position in line might jeopardize the whole war game, which had required months of preparation and might last for two weeks more. The doctor explained to his captain that

Jones' trouble was a surgical emergency of the gravest kind and that his death hazard doubled with every hour that operation was postponed. With these facts supplied him, the captain's decision was instant. The patient must be transferred to the hospital ship which was about 100 miles to the south, on a course paralleling that of the two fleets and half way between them, ready for just such contingencies as that which had happened to Jones.

A radio to the flagship was immediately prepared, requesting authority for the ship to leave formation, and an affirmative reply was quickly received. The hospital ship was notified of the position of the *Soandso* and directed to proceed toward her at full speed. With the former steaming at 15 knots and the latter at 30, you may get out your own algebra book and figure how long it took before they sighted each other. They stopped about a half mile apart and Jones, made slightly more comfortable by a large hypodermic injection of morphine, was placed in a stretcher in a motor boat. This was hoisted out and dropped down to the sea and it then ran over to the hospital ship. There a line was dropped from a davit and attached to Jones' stretcher, which it quickly brought up to the deck. In the meantime the operating room had been prepared in every detail. The operators were scrubbed, gowned and gloved. The anesthetist was ready with spinal needle in hand. The operation was quickly completed and Jones was soon sleeping, free from pain, in a bunk in the surgical quiet room.

Patients admitted to the *Relief* are not passed on to shore hospitals but are kept throughout the course of their illness and then returned to their own ships. The only ones transferred are those that will probably never be able to resume their place on board ship. The naval hospitals on shore draw their patients largely from the adjacent training stations, marine barracks, aviation bases and other activities. Thus the 1,200 beds of the naval hospital at San Diego are kept pretty well filled by patients from the various naval activities in that neighborhood.

The term "amphibious" might be applied to the *Relief*, for she is equipped to work on shore as well as at sea. In a storeroom in the hold is a complete field hospital, all ready to be set up on shore, to serve an expeditionary force or to help in any civil catastrophe. It was used to good effect after the Nicaraguan earthquake of 1931 and the Long Beach tremor of 1933. It includes tentage, cots and equipment for fifty patients besides the medical and nursing staff; also complete operating room, laboratory and messing arrangements which are designed to make it entirely self-supporting. During a recent trial, it required thirty-eight minutes to get the field hospital out of the hold and three and a half hours after the work of breaking it out was begun, it was ready to receive patients and serve dinner.

Thus does the navy carry on its hospitalization program on land and sea, an economical measure which unquestionably prevents loss of man power through injury or sickness.

